

生き甲斐

Ikigai

Alchemy of Purpose and Life-style
in Pain Management

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生き甲斐

- "a reason for being."
- refers to the source of value in one's life or the things that make one's life worthwhile
- "thing that you live for " ...reason to get up
- individual's ikigai is personal to them and specific to their lives, values and beliefs
- Activities that allow one to feel ikigai are never forced on an individual; they are often spontaneous, and always undertaken willingly, giving the individual satisfaction and a sense of meaning to life.

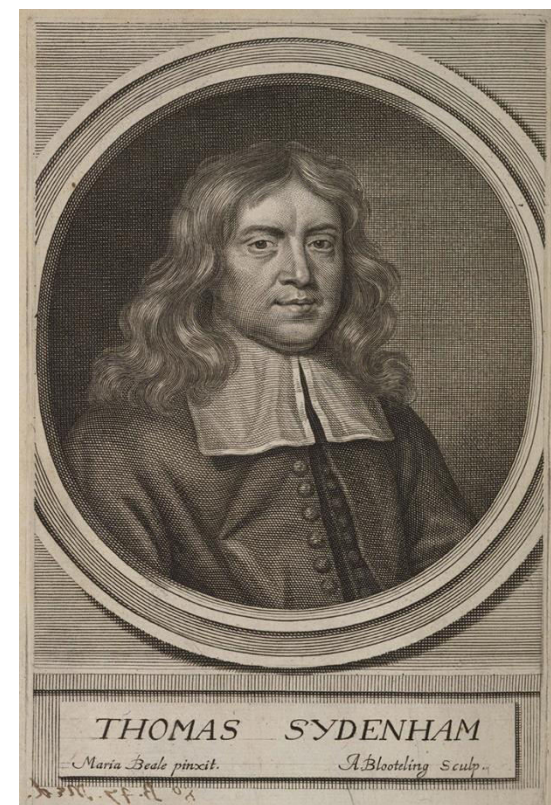
Polyneuropathy

- N 2892 with polyneuropathy
 - 1464 treated with opioids < 90 days
 - 18.8% treated with opioids > 90 days
- Control 14435 with 5.4% on opioids > 90 days
- 82 % written by Int. Med and Fam. Med
- 52% for MSK pain and 24% for polyneuropathy
- > 90 day group 56% female and > co-morbidity
 - MI, CHF, PVD, CVA, dementia
 - DM, Renal Dz & COPD

No functional status markers were
improved by long-term use of opioids

Of all the remedies it has pleased almighty God to give man to relieve his suffering, none is so universal & so efficacious as opium

<u>Measure</u>	<u>Adj. Odds Ratio</u>
Require assist device	1.9
Trouble with ADL	1.7
No longer working	1.3
Depression	1.53
Opioid OD	5.12
Opioid Dependence	2.85
<u>Continues with pain</u>	<u>2.5</u>
Trouble bathing	1.6
Opioid Abuse	3.97



Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain

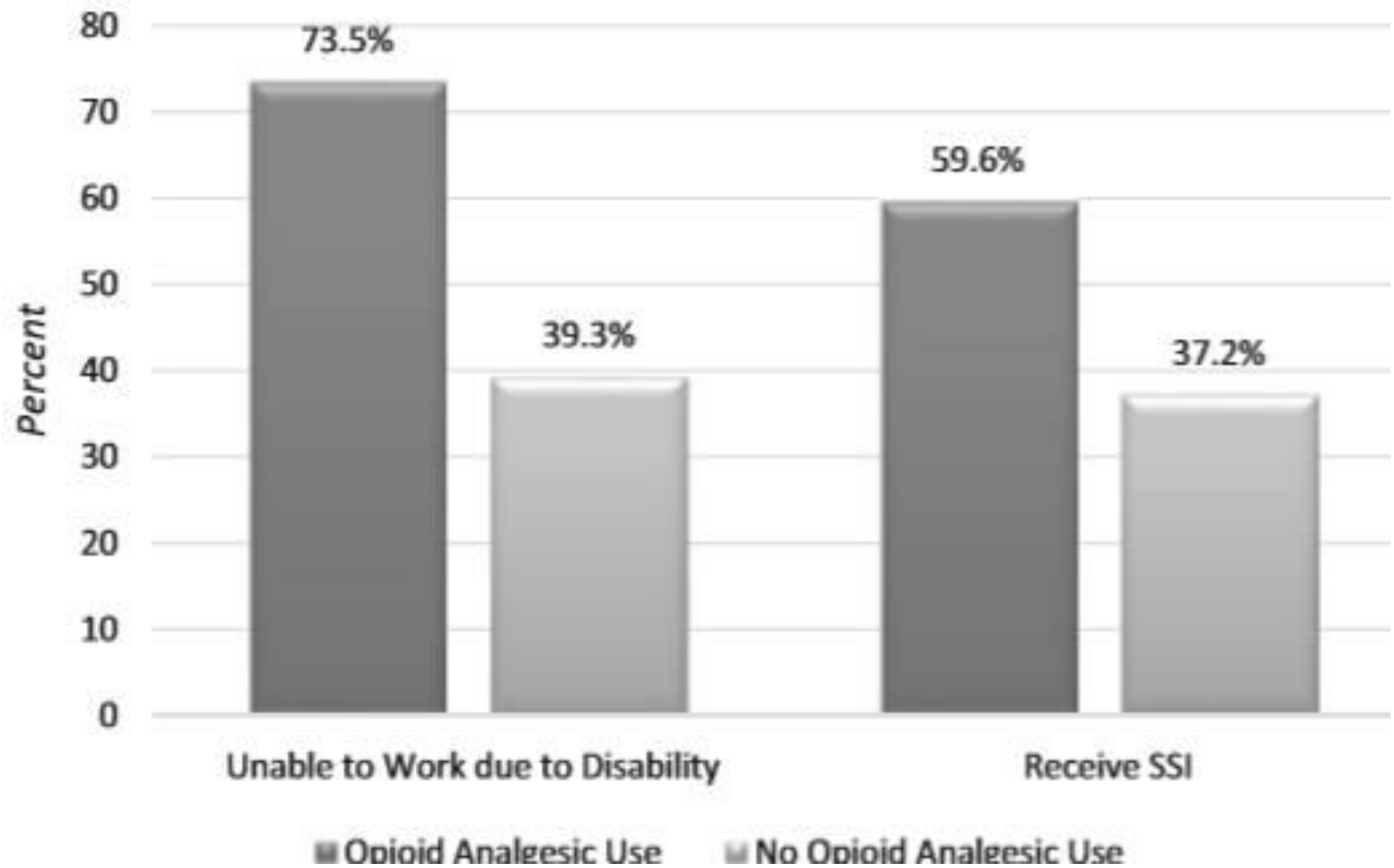
The SPACE Randomized Clinical Trial

- moderate to severe chronic back pain or hip or knee osteoarthritis pain despite analgesic use. 240 were randomized.
- Primary outcome Brief Pain Inventory (BPI) interference scale
- Secondary outcome was pain intensity (BPI severity scale)
- Each Arm had 3-tiers and opioid Arm went to 100 MED
- Pain intensity was signif. better in nonopioid group over 12 months
- **CONCLUSIONS** Treatment with opioids was not superior to treatment with nonopioid medications for improving pain-related function over 12 months. Results do not support initiation of opioid therapy for moderate to severe chronic back pain or hip or knee osteoarthritis pain.

JAMA March 6, 2018 Volume 319, Number 9

Table 2. Associations between opioid pain medication use and measures of pain severity, quality of life, and depression (N = 604)

Characteristic	Opioid Use (N = 136), Mean (SD)	No Opioid Use (N = 468), Mean (SD)	<i>P</i> Value
Pain severity*	7.22 (1.70)	6.89 (1.89)	0.0712
Pain interference [†]	7.30 (2.16)	6.07 (2.73)	<0.0001
PHQ-9 score [‡]	11.31 (5.99)	8.65 (6.05)	<0.0001
PHQ-9 categories, No. (%)			0.0007
0–4	16 (11.9)	132 (28.6)	
5–9	43 (32.1)	144 (31.2)	
10–14	32 (23.9)	93 (20.1)	
15–19	30 (22.4)	69 (14.9)	
≥20	13 (9.7)	24 (5.2)	
PROMIS global physical health [§]	8.98 (2.50)	10.13 (2.81)	<0.0001
PROMIS global mental health [¶]	9.91 (3.54)	11.66 (3.86)	<0.0001



Relationship Between Opioid Analgesic Prescription and Unemployment in Patients Seeking Acupuncture for Chronic Pain in Urban Primary Care

Opioid analgesic use was associated with **three** times the odds of unemployment due to disability while controlling for potential confounders, including depression, pain severity, pain interference, global physical and mental functioning, and demographic characteristics

Decisions, Effects & Perceptions

- I've not gone to work and don't even go out. I don't go out with my husband. I don't go out with my daughter. I don't go out with anybody... My **life** is pretty much at a **standstill**. (HQ)
- I can't do the things that I used to do and it kind of makes you ***feel like you can't do anything***... You have to depend on people to do stuff for you because, like I said, I can't even walk from here to the bus stop. (MN)
- (Pain) **affects** your **relationships** because it **affects your attitude**. Sometimes, somebody might want to talk to you or whatever and you are in pain and you don't mean to be mean and rude or not responsive.

Meaning in life in chronic pain patients over time: associations with pain experience and psychological well-being


- 2 yr. longitudinal study
- N=273 people with chronic pain
- examined the directionality of the relationships among the meaning in life dimensions (Presence of Meaning and Search for Meaning) and indicators of adjustment (depressive symptoms, life satisfaction, pain intensity, and pain medication use)
- found that Presence of Meaning was an important predictor of well-being



The capacity for *hope* is the most significant fact of life. It provides human beings with a sense of destination and the energy to get started.

Norman Cousins
Anatomy of an Illness

Less Cane Be More

1. Opioid tapering for those on COT
 - Pain  24 %, average pain 7.1 to 5.4
 - Close to ½ returned to opioids but this did not result in lowering pain scores
2. Opioid taper to off
 - Reduced pain in all ages, ~ 20%
 - Accompanied by reductions in:
 - Depression and catastrophizing

1. Clin J Pain 2013;29(9):760-769

2. Pain Med 2010;11(9):1352-1364

“Our prime purpose in this life is to help others.
And if you can't help them, at least don't hurt them”

- Team Work- Not all on your shoulders
- Acknowledge the Pain & offer Hope
- Approach the person, not just pain
- Improved E³
 - Evaluate, educate and engage
 - Safety and Efficacy concerns
- Replace opiocentric paradigm
- Focus on Function and Purpose
- Less Morbidity and Mortality

Painful and Pricey

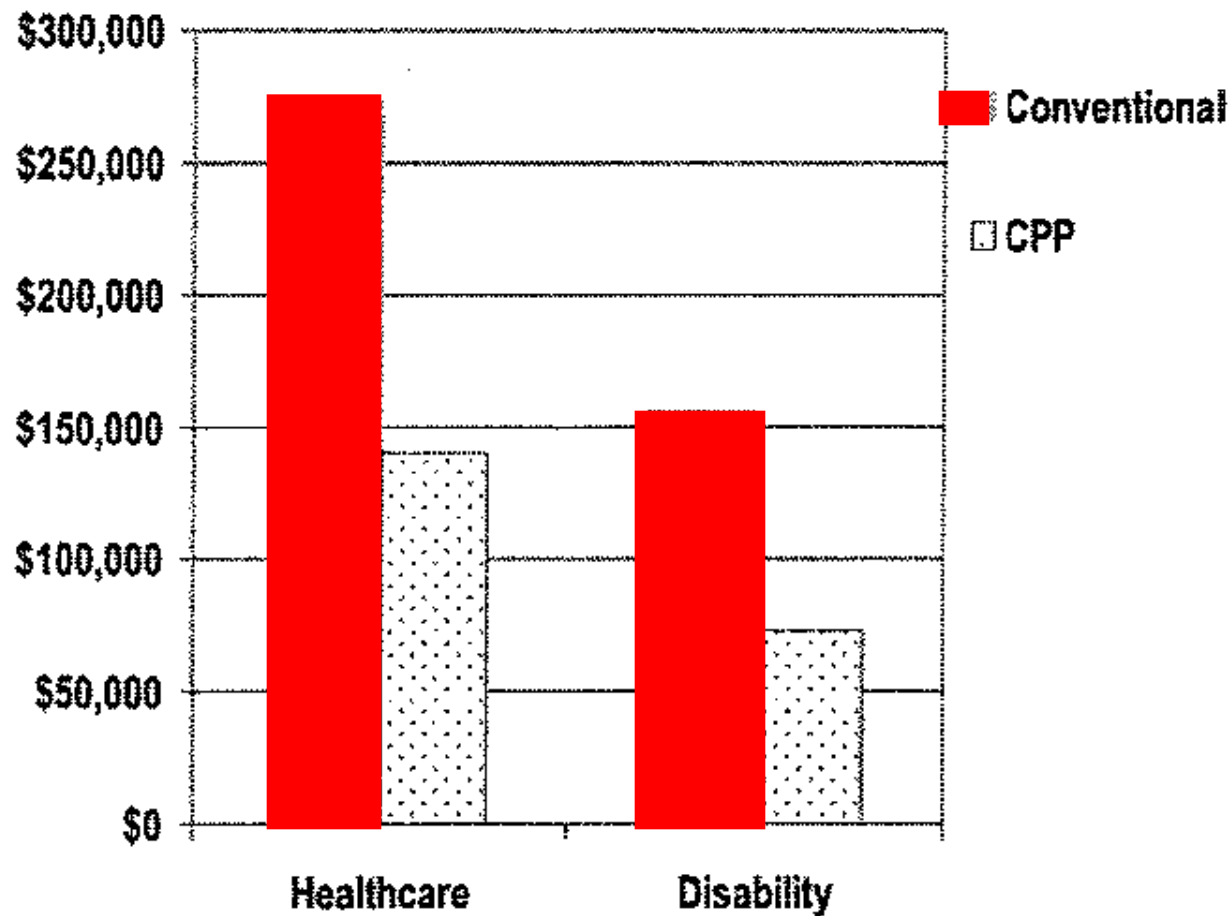


Figure 2. Lifetime healthcare and disability costs following treatment (comprehensive pain program versus medical treatment).

Couple Purpose and Care
Discover What's Possible

The Condition

- Isolated
- Stiff
- Unarmed
- Infirm
- Stuck
- Inertially exiled



Breaking the Cycle



We are what we think. All that we are arises with our thoughts. With our thoughts, we make the world

Life-style Modalities Pain

- Pain Education
- Purpose/ikigai
- Expectations
- Exercise
- Stress Reduction
- Sleep Education
- Mind-body
- Goal setting
- Nutrition
- Making a Change
- Laughter/Fun
- Peer Advocates

Control not cure

“My pain no longer controls my life. I now am in control of my pain and can enjoy my life. Thanks to the amazing staff through the Integrative Pain Program. Thank you all!” *J.D.*

Treatments

- EDUCATION
- Progressive Exercise
 - Aerobic/strength
 - Service to others
 - Yoga/Tai Chi
 - *Massage***
 - Acupuncture**
 - *Chiropractic***
 - Heat, TENS, Ice
 - Pacing Activity
- Purpose
- Mind-Body
 - Cognitive Behavioral Therapy
 - Diaphragmatic Breathing
 - Guided Imagery & Meditation
 - Relaxation Response
 - Goal Setting-Habits
 - Fun/laughter/enjoyment
 - Non-opioid medicine
- Sleep Changes
 - Food as Medicine
- EDUCATION

Only need to exercise on days you eat

Acupuncture and Hope

Surgery, neuropathy, diabetes and arthritis
All gave my body much pain
The pain pills I tried helped me some,
But too much pain would still remain
A program on pain and taking control
gave me a new outlook
Less food, better rest and exercise were
Parts of the path I took.

My pain center doctor and I discussed
treatment with acupuncture.

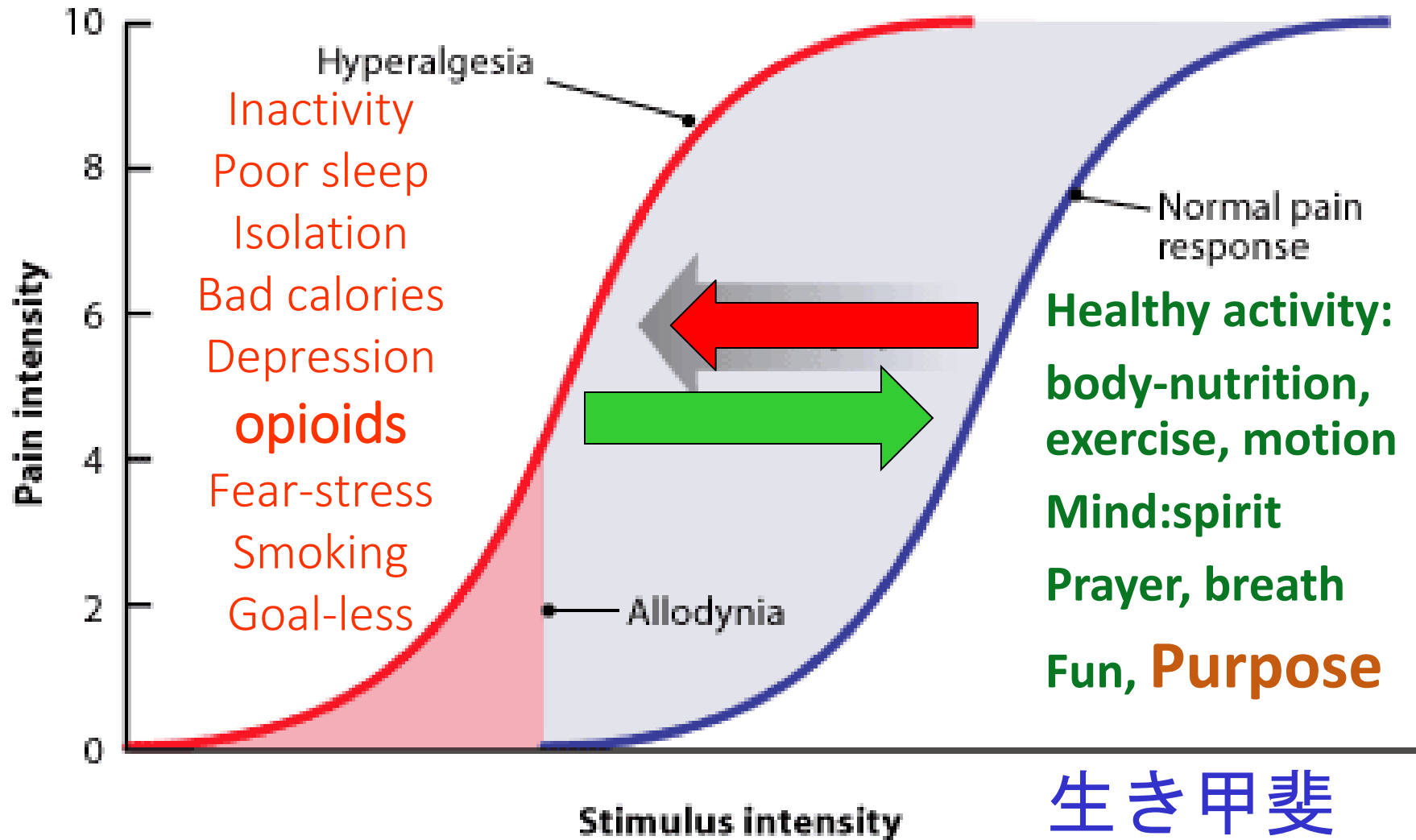
His knowledge and *care* eased my pain and fear
I can say it helped for sure.

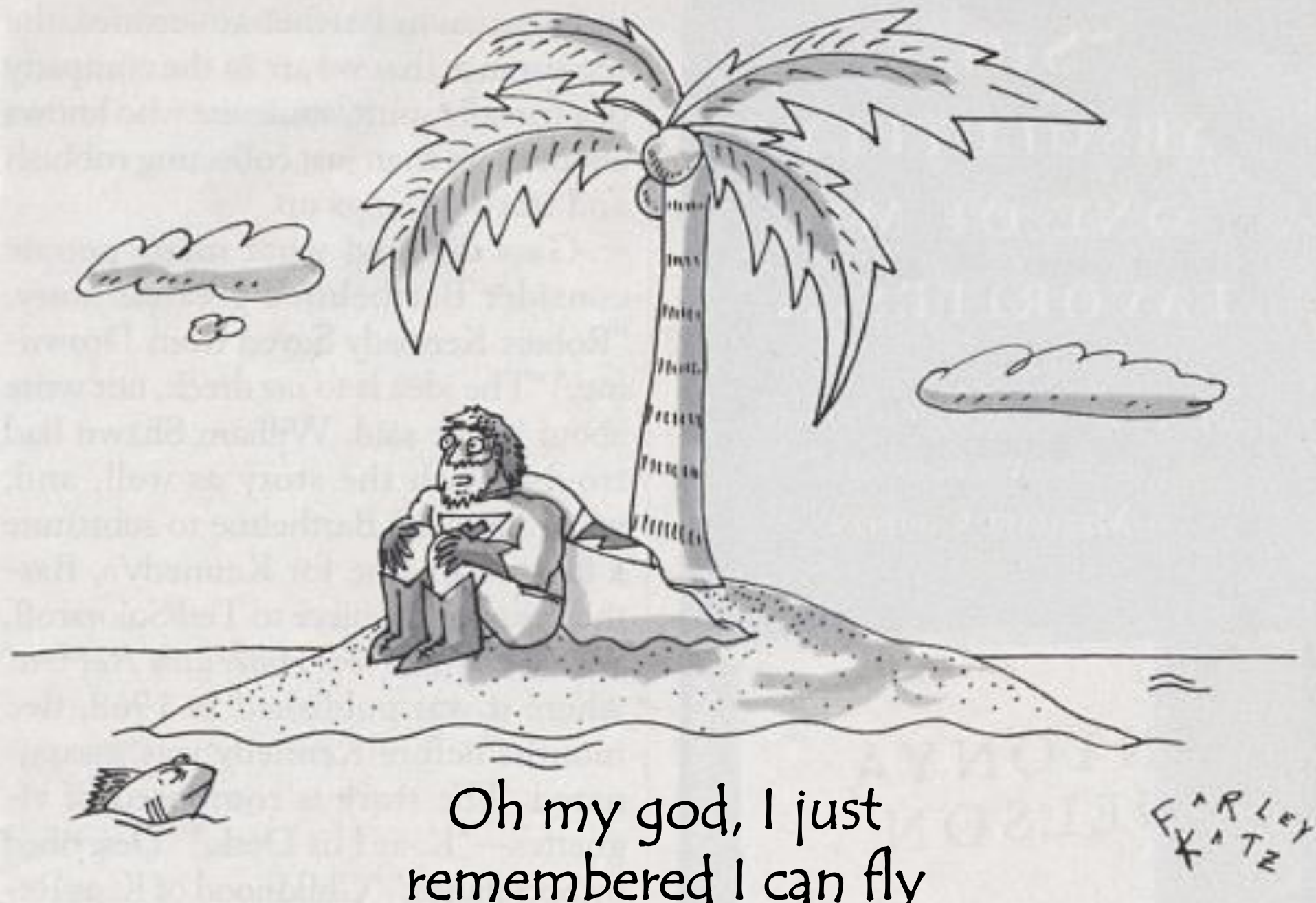
Acupuncture along with proper meds
and for all that I have learned

The doctors and staff at Wishard who care,
My thanks and respect have earned.

Kevin Crowe

You have Power to Re-habit





Oh my god, I just
remembered I can fly

FARLEY
KATZ



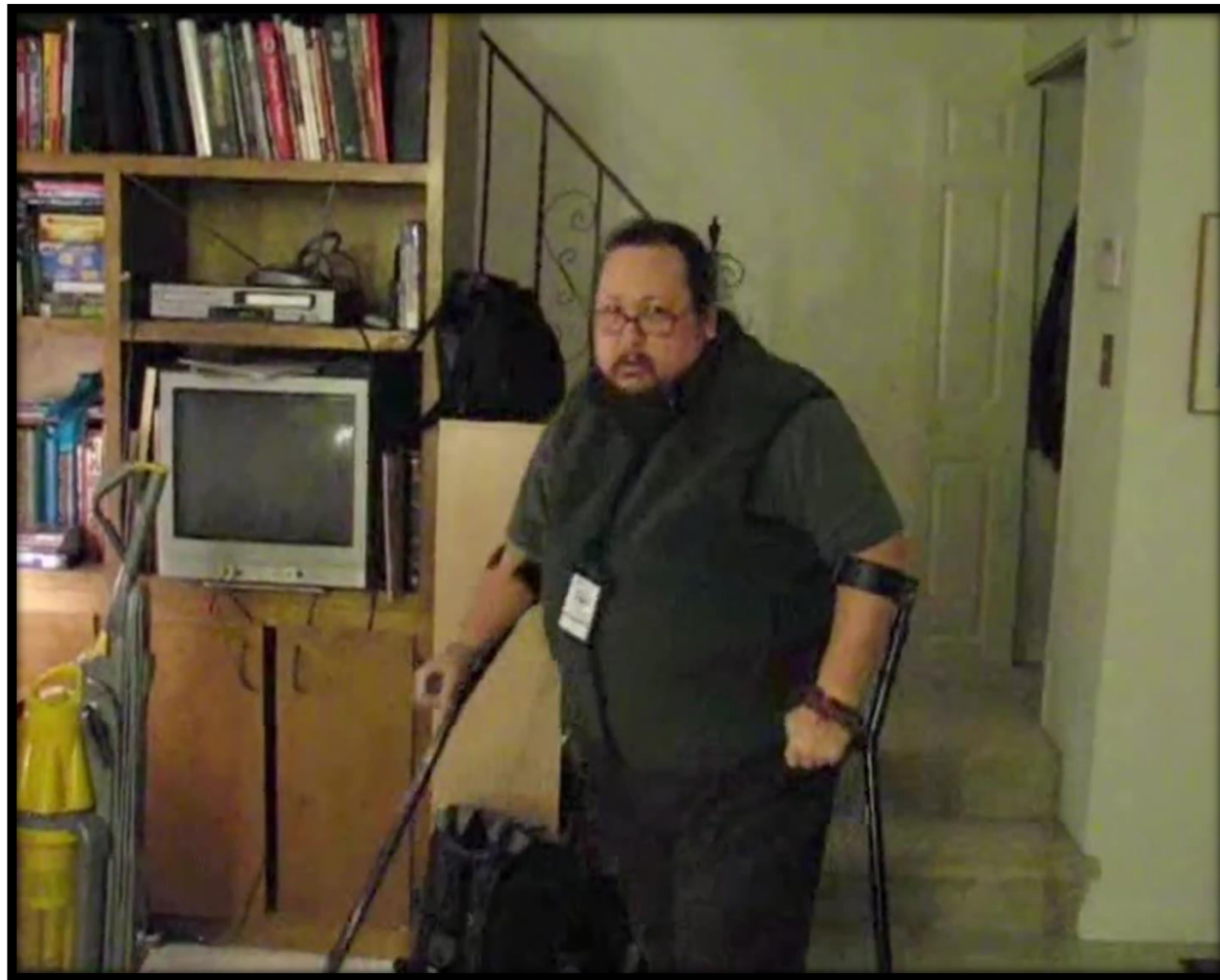
Open and Win
Oil on canvas
1970
14" x 20"
\$12,500



Le Mans, Into the Night
Oil on canvas
1970
14" x 20"
\$12,500

300 lb. Mustard Seed...

www.youtube.com/watch?v=qX9FSZJu448



Meet
Arthur Boorman

At Christmas there is special joy
in remembering those
who hold a special place in our hearts...

That's why there is joy in remembering you!

*Thanks for my
life in motion*

Step

**What is
your
goal?**

**Your
new
Habit?**

Lumbar instrumented fusion compared with cognitive intervention and exercises in patients with chronic back pain

A prospective randomized controlled study

- For patients with chronic low back pain after previous surgery for disc herniation
- The success rate was 50% in the fusion group and 48% in the cognitive intervention/exercise group
 - Oswestry Disability Index (ODI)

For chronic low back pain after previous surgery for disc herniation, lumbar fusion failed to show any benefit over cognitive intervention and exercises.

- Education
- Expectation
- Effort
- Belief
- Compassion



No Magic Bullet

Truth should not be Punitive

Reallocating time spent in sleep, sedentary behavior and light physical activity and its association with pain: a pilot sleep study from the Osteoarthritis Initiative

- 184 people at risk for knee pain/OA
- 84 had pain interference & knee pain
- Accelerometer to gage time in hours
- How they spent Days in hours
 - Sleep 7, sedentary 11
 - light activity 4.5
 - **0.23 moderate activity**
- Substituted sleep, sedentary behavior or light activity with 0.167/day of moderate activity

10 Minute Substitutions

21-25% lower bodily pain interference Odds Ratio

- Sleep 0.79
- Sedentary Behavior 0.74
- Light Physical 0.75
- knee pain odds reduced
17–20% per 10-min exchange

Effect of MBSR vs CBT or Usual Care on Back Pain and Functional Limitations in Adults With Chronic LBP: An 8-Week Randomized Clinical Trial

Treatment MBSR or CBT vs UC resulted in greater benefit in back pain & functional limitations at 26 wk.

There were no significant differences b/ MBSR and CBT.

The percentage of participants with clinically meaningful **improvement in disability** was statistically significantly higher for MBSR (61%) and CBT (58%) than for UC (44%) $P=.04$

JAMA.2016;315(12):1240-124

Literacy-Adapted Cognitive Behavioral Therapy Versus Education for Chronic Pain at Low-Income Clinic: RCT

- 10 weekly 90 min sessions: CBT vs. EDU
- Both beat usual care for pain and function
- At 6 months EDU cohort maintained pain benefit and CBT did not
- At 6 months both cohort's functioning outperformed usual care
- Depression was not different
 - CBT to EDU to Usual Care

Yoga as a treatment for chronic low back pain: A systematic review of the literature

Discussion—With few exceptions, previous studies and the recent randomized control trials (RCTs) indicate that yoga can **reduce pain** and disability, can be practiced *safely*, and is well received by participants.

Some studies also indicate that yoga may improve psychological symptoms, but these effects are currently not as well established.

Yoga, Physical Therapy, or Education for Chronic Low Back Pain A Randomized Noninferiority Trial

- 320 predominantly low-income, racially diverse adults with nonspecific Ch. LBP
- 12 weekly yoga vs. 15 PT session
- yoga program for nonspecific Ch.LBP was **noninferior to PT** for function and pain
- Improvements in yoga and PT groups were **maintained at 1 year**
- Yoga 21% and PT 22% less likely **Rx pain**

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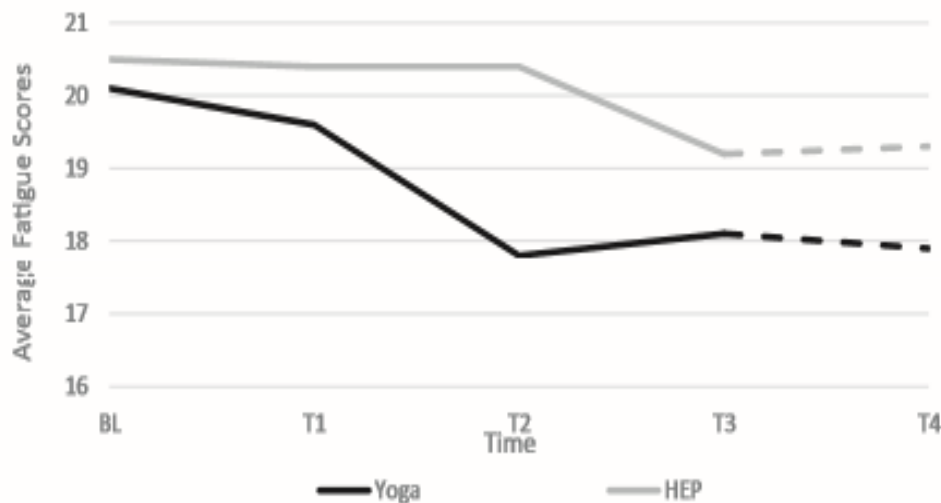
Sit-N-Fit Yoga

- Based upon Iyenger Hatha Yoga
 - recommended by the National Center for Complementary and Integrative Health (NCCIH) as safe for older adults because of its emphasis on proper body alignment.
- Twice weekly 45 min
- Instructor lead
- Chair yoga

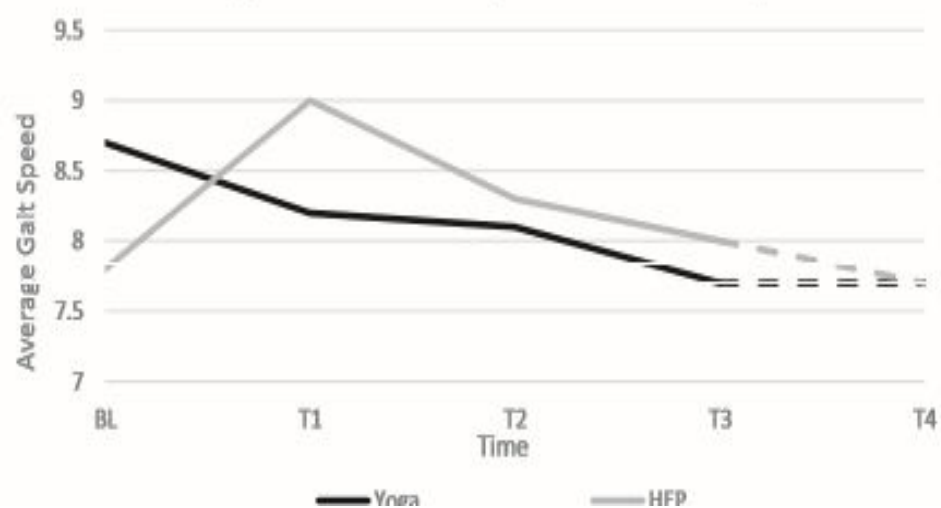
J Am Geriatr Soc 65:592–597, 2017



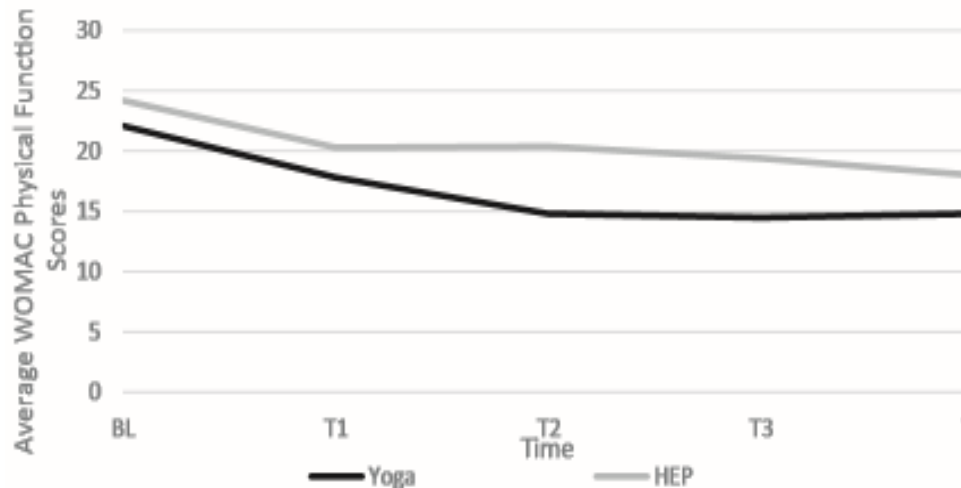
Fatigue Score
Changes Over Time By Treatment Group



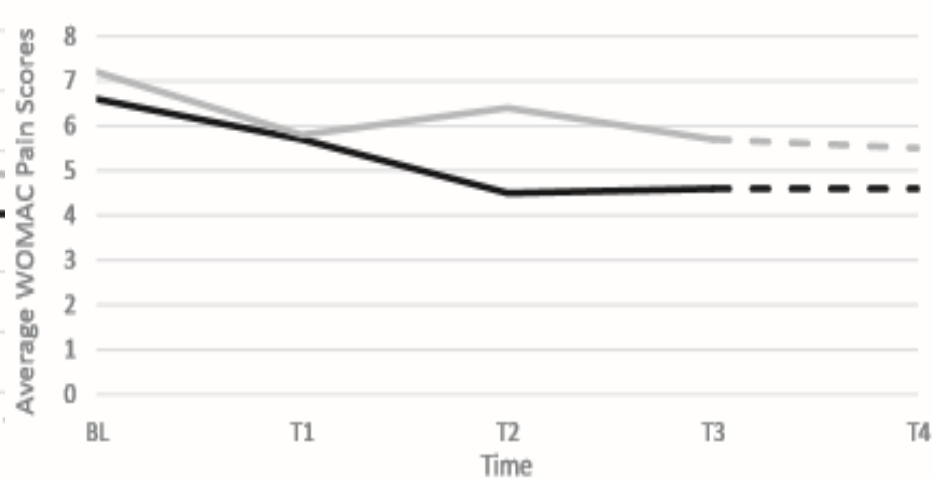
Gait Speed*
Changes Over Time By Treatment Group



WOMAC Physical Function Score
Changes Over Time By Treatment Group



WOMAC Pain Score
Changes Over Time By Treatment Group



Despite having chronic pain, Theresa enjoys working as a barista at a local coffee shop. She enjoys socializing and interacting with people. She gets up each morning and continues living her life even with consistent pain.

Effect of Tai Chi Versus Aerobic Exercise for FM: RCT

- N of 150 for Tai Chi (4 groups)
 - 12 or 24-week, once or twice weekly
- N of 75 for Aerobic Exercise
 - 24-week, twice weekly
- Followed for 52 weeks
- fibromyalgia impact questionnaire (FIQR)

Effect of Tai Chi Versus Aerobic Exercise for FM: RCT

- Both had improved FIQR scores
- Tai Chi was equal or superior
- Duration response-
 - 24 week better results than 12
 - Tai Chi 1/wk equal to 2/wk
- Tai Chi cohort attended more sessions

- Hopeful
- Armed
- Reaching
- Animated



Table 5. Treatment Response After 6 Months^a

Treatment Response	Therapy		
	Conventional	Sham Acupuncture	Verum Acupuncture
CPGS			
Success ^b	132 (34.1)	197 (50.9)	229 (59.2)
HFAQ			
Success ^c	195 (50.4)	251 (64.9)	281 (72.6)
Combined CPGS and HFAQ			
Success ^d	223 (57.6)	277 (71.6)	304 (78.5)
Total No. of patients	387	387	387
Combined GCPS, HFAQ, and unblinded patients			
Nonresponders ^e	164 (42.4)	125 (32.3)	112 (28.9)
Responders	223 (57.6)	262 (67.7)	275 (71.1)
Overall treatment response including proscribed rescue medication			
Nonresponders ^f	281 (72.6)	216 (55.8)	203 (52.4)
Responders	106 (27.4)	171 (44.2)	184 (47.6)
Total No. of Patients	387	387	387

Abbreviations: CPGS, Von Korff Chronic Pain Grade Scale; HFAQ, Hanover Functional Ability Questionnaire for measuring back pain–related functional limitations.

^aValues are given as number of patients (percentage).

^bSuccess was defined as 33% improvement or better on 3 pain-related items on the GCPS.

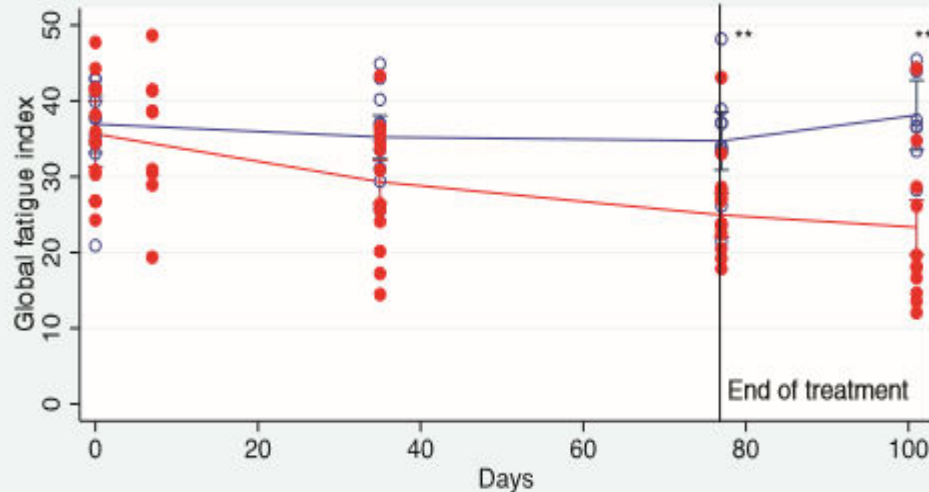
^cSuccess was defined as 12% improvement or better on the back-specific HFAQ.

^dSuccess was defined as 33% improvement or better on 3 pain-related items on the CPGS or as 12% improvement or better on the back-specific HFAQ.

GERAC
Chronic LBP

Randomized Controlled Trial of Acupuncture for Women with Fibromyalgia: Group Acupuncture with Traditional Chinese Medicine Diagnosis Based Point Selection

Global fatigue index over time
Mean fitted line with standard deviation



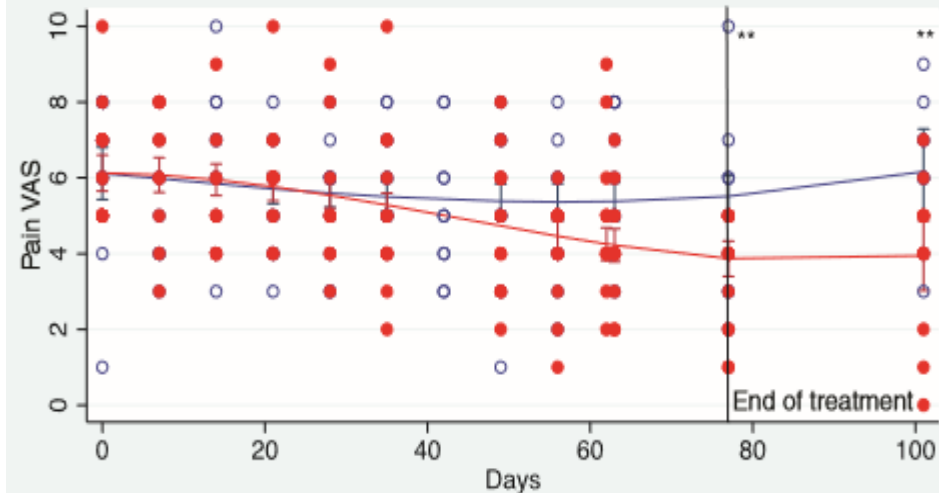
● Group acupuncture

○ Group education

** $P < 0.001$

Pain VAS over time

Mean fitted line with standard deviation



● Group acupuncture

○ Group education

** $P < 0.001$

Diabetic Neuropathy: 20 wk Intervention PBD + B12 vs. B12

	<u>Intervention</u>	<u>Supplement</u>
Weight (kg)	- 7.0	- 0.6
LDL	- 7.8	+ 0.4
Fasting Gluc	- 25.9	-19.2
A1C	- 0.8	0.0
SBP	- 11.5	- 4.3
SF McGill Pain Quest.	- 9.1	- 0.9
MNSI-Q	- 2.2	- 0.6

Dietary intake of fibre and risk of knee osteoarthritis in two US prospective cohorts

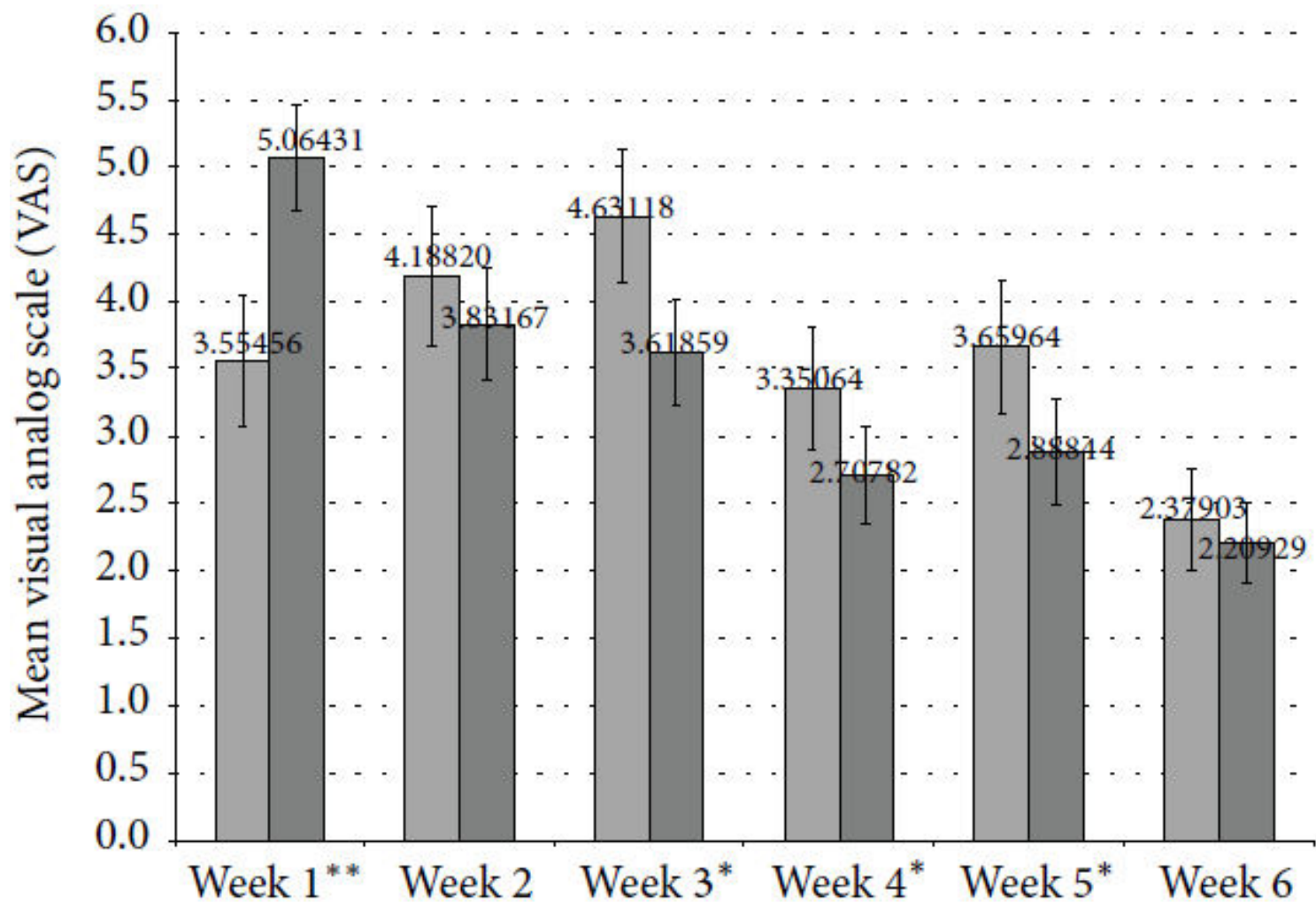
- Framingham (1268) and Osteoarthritis Initiative(4796)
- Baseline fiber intake, SxOA, and ROA
- OAI also assessed knee pain worsening
- 4 yrs in OAI and 9 yrs for Framingham
- Osteoarthritis Initiative
 - 861 knees with SxOA, 152 knees with ROA and 1964 knees with pain worsening among 4051 subjects with valid dietary intake
- Framingham
 - 143 knees with SxOA and 175 knees with ROA among 971 such subjects

SxOA Inversely Associated with Fiber

- In both cohorts:
- Dietary total fiber was inversely ass. with risk of SxOA
 - (p trend <0.03)
- Significantly lower risk at the highest vs. lowest quartile
 - OR 0.70 for OAI and 0.39 for Framingham
- Dietary total & cereal fiber significantly inversely ass. with knee pain worsening in OAI (p trend <0.02)
- No apparent association was found with ROA

Whole-Foods, Plant-Based Diet Alleviates the Symptoms of Osteoarthritis

- 6-week, Randomized Open Trial
- Intervention >90% of their kcal from plants
- Control continued their omnivorous diet
- SF-36 and VAS
- Patient Global Impression of Change (PGIC)



■ Control

■ Intervention

** Intervention-control difference sig. at $P < 0.01$

* Intervention-control difference sig. at $P < 0.05$

TABLE 3: Mixed models analysis of PGIC change from Week 1[‡].

	Control	Intervention	Int-Cont	<i>P</i> value
PGIC-Row				
Week 1	1.72	2.63	0.91	0.073
Change from Week 1				
Week 2	0.33	1.37	1.04	0.022
Week 3	0.00	1.79	1.79	0.002
Week 4	0.00	2.21	2.21	<0.001
Week 5	0.28	2.32	2.04	0.003
Week 6	0.54	2.74	2.19	0.001
PGIC-Line				
Week 1	4.67	4.11	-0.56	0.127
Change from Week 1				
Week 2	-0.06	-0.26	-0.21	0.541
Week 3	0.67	-0.63	-1.30	0.016
Week 4	0.11	-1.42	-1.53	0.008
Week 5	-0.17	-1.37	-1.20	0.018
Week 6	-0.01	-2.05	-2.04	<0.001

[‡]Adjusted for BL SF-36v2 BP.

SF-36: Domains for Quality of Life

TABLE 2: SF-36v2* mixed models analysis of change from baseline.

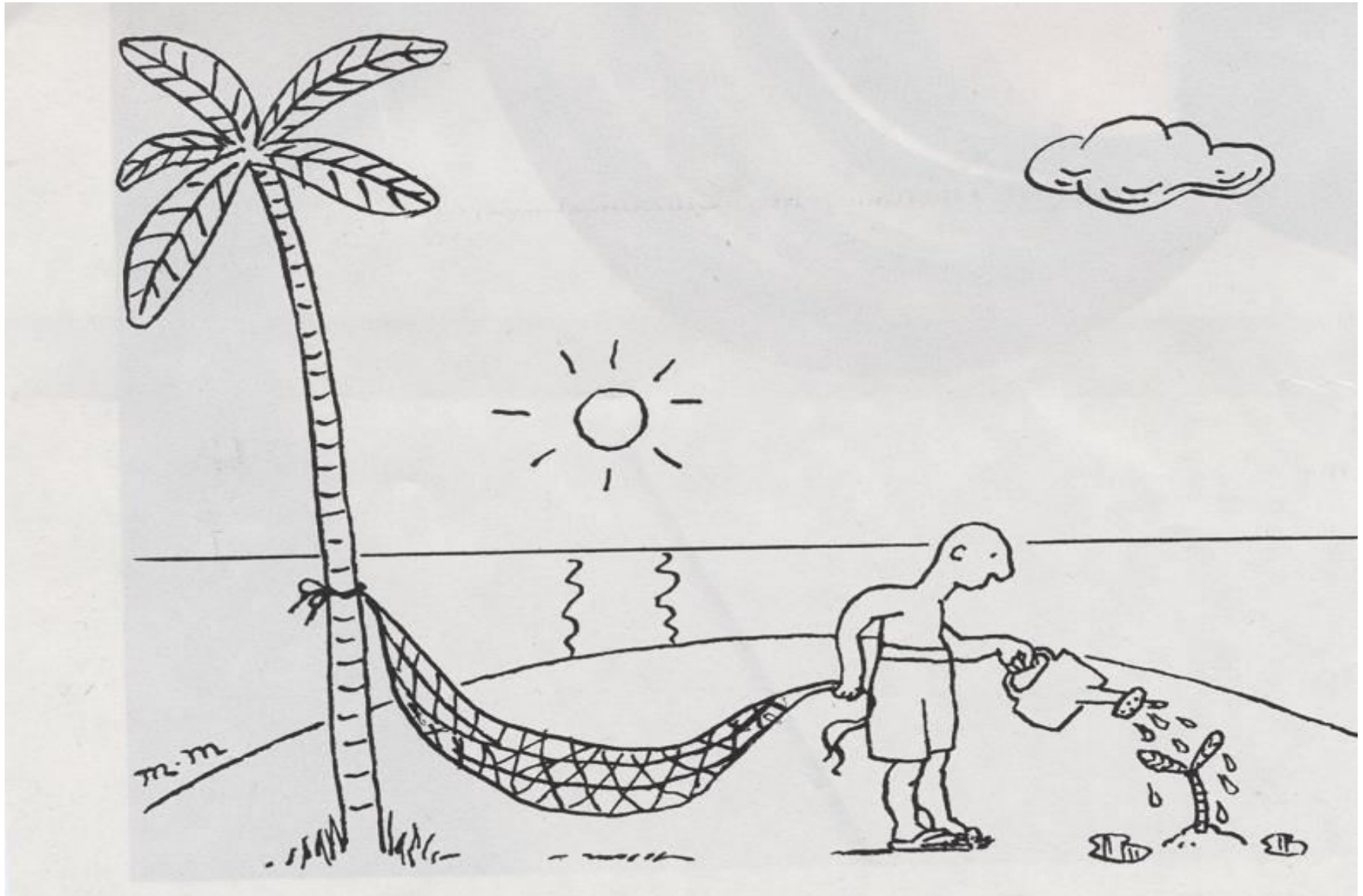
	PF	RP	BP	VT	PCS	GH	SF	RE	MH	MCS
Baseline mean										
Control (Cntl)	44.15	45.75	40.13	47.63	45.04	49.48	43.26	44.74	44.19	45.36
Intervention (Int)	39.66	40.8	39.18	40.77	40.19	44.42	41.69	43.92	42.44	43.93
Week 2										
Cntl	0.88	1.49	2.11	3.89	−0.23	1.17	6.88	4.56	5.72	6.97
Int	4.20	5.40	5.77	9.29	4.57	4.23	7.64	3.59	6.85	6.87
Int-Cntl	3.31	3.91 [†]	3.66 [†]	5.41 [†]	4.80 [‡]	3.06	0.76	−0.98	1.13	−0.11
Week 6										
Cntl	1.02	2.65	5.41	5.49	1.31	2.01	5.08	5.05	6.46	6.87
Int	7.11	9.29	8.61	11.97	7.44	7.15	10.47	7.97	9.48	9.97
Int-Cntl	6.09 [‡]	6.64 [‡]	3.20	6.49 [†]	6.13 [‡]	5.14 [†]	5.39	2.92	3.01	3.10

Nonpharmacologic Therapies:

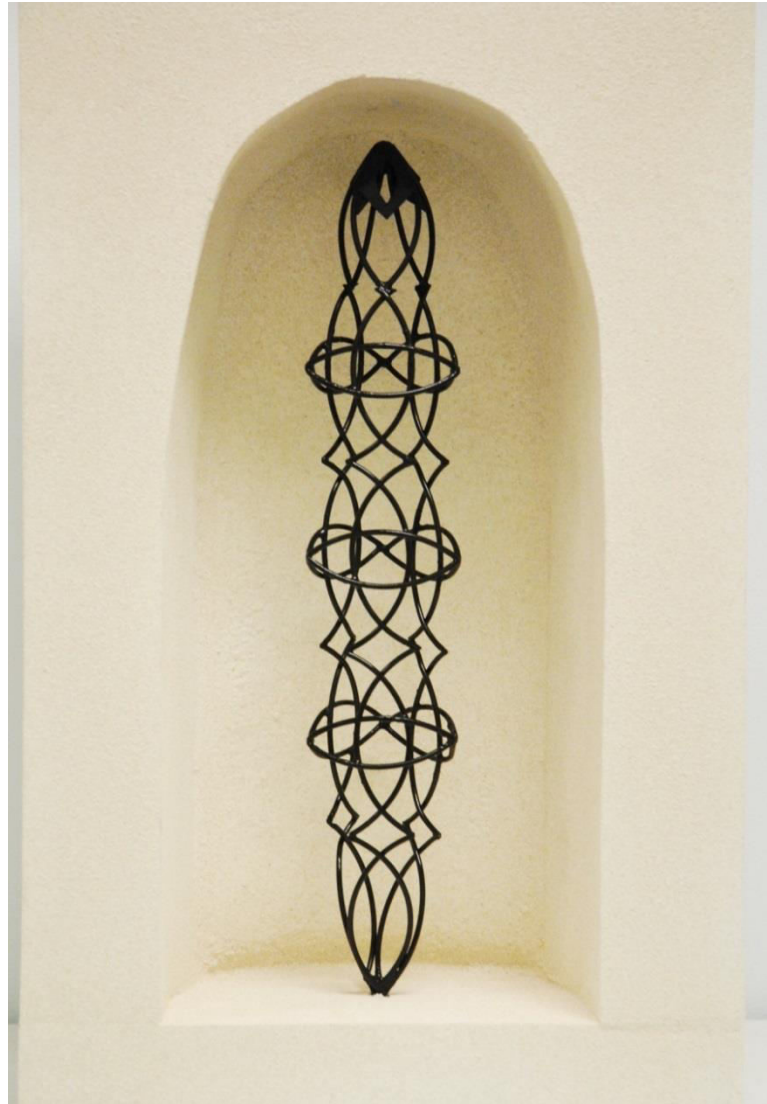
Exercise

1. Chronic Low Back Pain
2. Fibromyalgia
3. Hip OA
4. Knee OA
 - Helped function and or pain for at least 4 weeks
 - No serious harms
5. Mood and sleep

“I’m investing less than 7 hours a month on headache prevention and getting next to no headaches”



“I’m investing less than 7 hours a month on headache prevention and getting next to no headaches”





From opioids
to
bed bound
to
Eskenazi's IPP
to
volunteer
to
employee

Back into Ikigai



Tell me and I Forget
Show me and I may Remember
Involve Me and I'll Understand

Pain Care Paradox

Standard Approach, Individual Treatment

- 1) Informed and Involved
- 2) Establish the **relationship** and Hope
 - ✓ Motivation(s)
- 3) Remove opiocentric perspectives
- 4) Focus on **Functionality**
- 5) Polymodal diagnosis & treatment
- 6) Improved outcomes
- 7) Greater safety and reduced cost

More Control-Less Pain

Ikigai

Ikigai:

the process of allowing the
self's possibilities to blossom

Kobayashi Tsukasa

The

END

Relationships Matter- Invest

- Therapeutic Relationships
 - Therapeutic visits and deliverables
 - *11-13 mins is problematic*
- Create a Packet- for office and patient
 - Teach and Teach back
 - Chronic Pain, addiction, recovery
 - Sleep, medications, psych. impact
 - Less pain, more control
 - Create Resource Guide
 - Pools, gyms, yoga, churches
 - meditation, nutrition, chiropractors
 - Books and websites

Angel finds preparing and cooking food challenging due to the pain she experiences.

However, the work helps her feel a part of her community and adds purpose and a sense of control over her life.